Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended): A composition comprising a population of cytotoxic lymphocytes that is ex vivo expanded, ~~in absence of tumor or vasculature associated antigen~~ wherein the expanded lymphocytes selectively damage tumor associated vasculature cells and wherein at least a subpopulation of the expanded lymphocytes express one or more members of a cell surface receptor family which binds at least heat shock protein 47, and a pharmaceutically acceptable carrier.

2-5. (Cancelled).

6. (Currently Amended): The composition of claim 1, wherein at least a subclass of the ex vivo expanded cytotoxic lymphocytes selectively kill tumor-associated vascular endothelial cells.

7-19. (Cancelled).

20. (Previously Presented): The composition of claim 1 wherein the ex vivo expanded cytotoxic lymphocytes comprise cells expressing both CD3 and CD56.

21. (Previously Presented): The composition of claim 1 wherein the ex vivo expanded cytotoxic lymphocytes kill tumor cells.

22. (Original): The composition of claim 1 further comprising a chemotherapeutic compound.

23. (Cancelled).

24. (Previously Presented): The composition of claim 1, wherein an agent is bound to a surface of the ex vivo expanded cytotoxic lymphocytes.

25. (Previously Presented): The composition of claim 24 wherein the agent is a mono-, bi-, or multi-specific antibody or molecular scaffold, having at least one binding activity specific to the cytotoxic lymphocytes and at least one other binding activity specific to a cancer cell or endothelial target.

26-33. (Cancelled).

34. (Withdrawn): A method for treating a patient suffering from a cancer, the method comprising administering to a patient the composition of any of claims 1, wherein the ex vivo expanded cells are autologous to the patient.

35. (Withdrawn): The method of claim 34 wherein the cancer stimulates neo-angiogenesis.

36. (Withdrawn): The method of claim 34 wherein the tumor is a solid tumor.

37. (Withdrawn): The method of claim 34 wherein the ex vivo cells are capable of undergoing replication in culture.

38. (Withdrawn): The method of claim 34 wherein the composition is administered without co-administration of a cytokine.

39. (Withdrawn): The method of claim 34 wherein the composition is not administered within five days of the administration of a cytokine.

40. (Withdrawn): The method of claim 34 wherein at least 10^5 of the ex vivo expanded cells are administer in a given day.

41. (Withdrawn): The method of claim 34 where the composition is administered at least two times within 7 days.

42. (Withdrawn): The method of claim 34 where the composition is administered at least two times within 30 days.

43. (Withdrawn): The method of claim 34 wherein the patient is suffering from a cancer selected from a stage 1 cancer, stage 2 cancer, stage 3 cancer, or a stage 4 cancer.

44. (Withdrawn): The method of claim 34 wherein the patient is suffering from a cancer selected from a low grade cancer, an intermediate grade cancer, and a high grade cancer.

45. (Withdrawn): A method for preparing a composition comprising ex vivo expanded cells that selectively kill tumor-associated vascular endothelial cells compared vascular endothelial cells associated with normal tissues, the method comprising:

a) providing a composition comprising NK cells; and

b) enriching the composition for cells that express a receptor for heat shock protein 47.

46. (Withdrawn): A method for preparing a composition comprising ex vivo expanded cells that selectively kill tumor-associated vascular endothelial cells compared vascular endothelial cells associated with normal tissues, the method comprising:

a) providing a composition comprising NK cells; and

b) enriching the composition for cells that express a receptor for HLA.

47. (Withdrawn): A method for preparing a composition comprising ex vivo expanded cells that selectively kill tumor-associated vascular endothelial cells compared vascular endothelial cells associated with normal tissues, the method comprising:

a) providing a composition comprising NK cells;

b) enriching the composition for cells that express a receptor for interleukin-12.

48. (Withdrawn): A method for ex vivo expansion of EAT cells comprising culturing pre-cursor in agitated medium.

49. (Withdrawn): The method of claim 48 wherein the cells are grown in a membrane enclosure.

50. (Withdrawn): The method of claim 48 wherein the cells are grown in bioreactor.

51. (Withdrawn): The method of claim 48 wherein the cells a shipped to location other than the site of expansion.

52. (Withdrawn): The method of claim 34 wherein treatment comprises outpatient treatment.

53. (Withdrawn): The method of claim 34 wherein the patient is suffering from a non-malignant disease.

54. (Withdrawn): The method of claim 34 wherein the patient is a cancer survivor.

55. (Withdrawn): The method of claim 34 wherein the patient is healthy.

56. (Withdrawn): The method of claim 34 wherein the patient is at increased risk for cancer.

57. (Withdrawn): The method for treating a patient comprising administering to a patient the composition of any of claims 1, wherein the ex vivo expanded cells are allogenic to the patient.

58. (Withdrawn): The method of claim 55 wherein the cells are immortalized.

59. (Cancelled).

60. (Previously Presented): A composition comprising an ex vivo expanded population of cytotoxic lymphocytes wherein the ex vivo expanded cytotoxic lymphocytes kill cultured human umbilical cord endothelial cells in the absence of Hsp47 and a pharmaceutically acceptable carrier.

61. (Previously Presented): The composition of claim 60 wherein at least a subclass of the ex vivo expanded cytotoxic lymphocytes kill cultured human umbilical cord endothelial cells in the absence of Hsp47.

62. (Cancelled).

63. (Cancelled).

64. (Currently Amended): A composition comprising a population of cytotoxic lymphocytes that is ex vivo expanded in absence of antigen, wherein the ex vivo expanded cytotoxic lymphocytes do not cause vascular leak syndrome.

65. (Previously Presented): The composition of claim 64, wherein at least a subclass of the ex vivo expanded cytotoxic lymphocytes do not cause vascular leak syndrome.

66. (Currently Amended): A composition comprising a population of cytotoxic lymphocytes that is ex vivo expanded in absence of antigen, wherein the ex vivo expanded cytotoxic lymphocytes do not express a T cell receptor.

67. (Previously Presented): The composition of claim 66, wherein at least a subclass of the ex vivo expanded cytotoxic lymphocytes do not express a T cell receptor.

68. (Previously Presented): The composition of claim 1, wherein the ex vivo expanded cytotoxic lymphocytes are not lethally irradiated.

69. (Previously Presented): The composition of claim 1 further comprising an additional cytokine.

70. (Previously Presented): The composition of claim 1, wherein the ex vivo expanded cytotoxic lymphocytes are not stably transfected with a nucleic acid molecule encoding a cytokine.

71. (Currently Amended): A composition comprising a population of cytotoxic lymphocytes that is ex vivo expanded in absence of antigen, wherein the ex vivo expanded cytotoxic lymphocytes are fused to any other cell forming a hybridoma.

72. (Previously Presented): The composition of claim 1 wherein the ex vivo expanded cytotoxic lymphocytes are frozen.

73. (Currently Amended): The composition of claim ~~72~~ 1 packed within a shipping means.

74. (Previously Presented): A composition comprising an ex vivo expanded population of cytotoxic lymphocytes grown in a bioreactor in the absence of antigen.

75. (Currently Amended): The composition of claim 1, wherein the ex vivo expanded cytotoxic lymphocytes express one or more members of a cell surface receptor family which further binds one or more of the group ~~recognizes heat shock protein~~, HLA-A, HLA-G, IL-12 receptor, ~~or~~ and a polypeptide containing a consensus peptide of heat shock protein 47.

76. (Currently Amended): The composition of claim 1, wherein the member of a cell surface receptor family binds ~~recognizes Hsp47~~ a consensus peptide of heat shock protein 47.

77. (Currently Amended): The composition of claim 1, wherein the member of a cell surface receptor family ~~recognizes~~ binds HLA.

78. (Currently Amended): The composition of claim 1, wherein the member of a cell surface receptor family ~~recognizes~~ binds IL-12 receptor.

79. (Previously Presented): The composition of claim 1, wherein the member of the cell-surface receptor is a killer inhibitory receptor.

80. (Previously Presented): The composition of claim 1, wherein the member of the cell-surface receptor is an inhibitory receptor.

81. (Previously Presented): The composition of claim 1, further comprising dendritic cells, T helper cells or tumor targets.

82. (Currently Amended): The composition of claim 81, comprising dendritic cells ~~are~~ pulsed with tumor or endothelial antigens.

83. (Previously Presented): The composition of claim 81, comprising unpulsed dendritic cells.

84. (Previously Presented): The composition of claim 24, wherein the agent is a toxin.

85. (Previously Presented): The composition of claim 24, wherein the agent is a radioactive molecule.

86. (Previously Presented): The composition of claim 24, wherein the agent is an immune modulator.

87. (Previously Presented): The composition of claim 24, wherein the agent is a tracer.

88. (Previously Presented): A composition comprising a population of cytotoxic lymphocytes that is ex vivo expanded in absence of tumor or vasculature antigen, wherein the ex vivo expanded lymphocytes selectively damage tumor associated vasculature cells and an agent.

89. (Previously Presented): The composition of claim 88, wherein the agent is a protein that binds the ex vivo expanded cytotoxic lymphocytes and directs the cytotoxic lymphocytes to a tumor target.

90. (Previously Presented): The composition of claim 88, wherein the agent is protein that binds the ex vivo expanded cytotoxic lymphocytes and directs the cytotoxic lymphocytes to either a tumor associated vasculature target.

91. (Previously Presented): The composition of claim 88, wherein the agent is a molecular scaffold that binds the ex vivo expanded cytotoxic lymphocytes and directs the cytotoxic lymphocytes to a tumor target.

92. (Previously Presented): The composition of claim 88, wherein the agent is molecular scaffold that binds the ex vivo expanded cytotoxic lymphocytes and directs the cytotoxic lymphocytes to a tumor associated vasculature target.

93. (New) The composition of claim 1, wherein the cytotoxic lymphocytes are ex vivo expanded in the absence of tumor or vasculature associated antigen.

94. (New): A composition comprising a population of cytotoxic lymphocytes created by a method comprising:

a) ex vivo expanding peripheral blood lymphocytes in a closed system; and

b) adding cytokines;

wherein the composition is able to selectively damage tumor associated vasculature cells in the absence of tumor or vasculature associated antigen.

95. (New): The method of claim 94, wherein the cytokines include interferon gamma, anti-CD3 antibody, and interleukin-2.

96. (New): The method of claim 94, wherein the closed system is a bioreactor.

97. (New): The method of claim 94 further comprising agitating the lymphocytes.

98. (New): The method of claim 94 further comprising aerating the lymphocytes.

99. (New): The method of claim 96, wherein the bioreactor includes electrodes.

100. (New): The method of claim 94, further comprising continually feeding the lymphocytes.